

Specification Amendments:

Please replace the paragraph beginning at page 6, line 19 (paragraph 32) with the following rewritten paragraph:

-- When electrical isolation between the voltage source and the load-a loudspeaker-is needed, a transformer T1 with a primary winding and a center-tapped secondary winding can be used with the modified H-bridge of FIG. 9, as shown in FIG. 10, where the switch S7 is now on the secondary side of the transformer T1. This switch Q7 is blocking when both switches Q3-Q4 are conducting while the switches Q5-Q6 of the power modulator 12 are both OFF. This embodiment works best in ternary mode because of inherent limitation in the maximum duty ratio of the pulses. Another embodiment of isolated class-N amplifier, FIG. 11, uses a synchronous demodulator 16 consisting of the modified H-bridge switches S1-S4 by using two identical transformers T1A-T1B to do away with the need for the switch Q7 of FIG. 10. It should be appreciated that the exemplary switching amplifier of Figure 11 can be described into two, isolated switching power converters. For instance, a first switching power converter includes transformer T1A and switches S1, S3, and Q5, and a second switching power converter includes transformer T1B and switches S2, S4, and Q6. Figure 11B shows an alternative embodiment to the switching amplifier of Figure 11, and the exemplary switching amplifier of Figure 11B can also be described into two, isolated switching power converters. For example, a first switching power converter includes transformer T1A and switches S1, S3, and Q5, and a second switching power converter includes transformer T1B and switches S2, S4, and Q6. Further, as seen in Figure 11B, it should be appreciated that switches S1-S4 have a common connection node. Other variations of embodiments using modified H-bridge directly connected to a center-tapped secondary 42 of an isolation transformer T1 comprise a half-bridge power modulator 12HB, FIG. 12, and a full-bridge power modulator 12FB, FIG. 13, on the primary side of the transformer T1. A proper implementation of these transformer-isolated embodiments will have to address the issue of transformer flux imbalance in similar fashion as in previous paragraph. These embodiments do not have the property of reduced switch current. On the other hand they are mostly used in high voltage application applications, therefore high switch current is often not an issue. --